

NFIRS 5.0 Self Study Program

Structure Fire Module: NFIRS 3

Objectives

After completing the Structure Fire Module the student will be able to:

1. Describe when the Structure Fire Module is to be used.
2. Demonstrate how to correctly complete various sections of the Structure Fire Module given scenarios of hypothetical incidents.

Pre-Test #3 - Structure Fire Module

1. All structures are buildings
 - (a) True
 - (b) False
2. A structure fire module is completed for a hostile file confirmed to a chimney.
 - (a) True
 - (b) False
3. The Structure Fire Module is a required NFIRS Module.
 - (a) True
 - (b) False
4. All buildings are structures.
 - (a) True
 - (b) False
5. A Structure Fire Module should be completed for all structure fires that extend beyond a non-combustible container.
 - (a) True
 - (b) False

*Using The
Structure Fire
Module*

Using The Structure Fire Module

The Structure Fire Module furnishes information regarding the **buildings** involved in the fire, how the fire started, and detection and suppression equipment present.

The Structure Module (NFIRS-3) should be completed for all structure fires that extend beyond a non-combustible container. A structure is an assembly of materials forming a construction for occupancy or use to serve a specific purpose. This includes, but is not limited to, buildings, open platforms, bridges, roof assemblies over open storage or process areas, tents, air-supported structures, and grandstands. Like the other modules, the Structure Module is divided into sections and further subdivided into blocks. The sections and blocks ask for information on different factors or items involved in the building fire.

Section I

Section I: Structure Type, Building Status, Building Height

Block I₁

I₁	Structure Type ☆
If fire was in an enclosed building or a portable/mobile structure complete the rest of this form	
1	<input type="checkbox"/> Enclosed building
2	<input type="checkbox"/> Portable/mobile structure
3	<input type="checkbox"/> Open structure
4	<input type="checkbox"/> Air supported structure
5	<input type="checkbox"/> Tent
6	<input type="checkbox"/> Open platform (e.g. piers)
7	<input type="checkbox"/> Underground structure (work areas)
8	<input type="checkbox"/> Connective structure (e.g. fences)
0	<input type="checkbox"/> Other type of structure

Block I₁ records information regarding the type of structure. If the fire is in an enclosed building, complete this entire module. The rest of the module would not be completed if the structure is:

- An open structure - such as a bridge
- An air supported structure
- A tent
- An open platform - such as a pier, dock

- A connective structure - such as a fence or pipeline
- An underground structure - such as flood tunnel

Complete the Structure Module for enclosed buildings. Examples include: residential buildings, commercial buildings, a rail tunnel, subway system, highway tunnel, or similar structures. It must also be completed for portable/mobile structures such as job-site trailers, portable offices or similar structures.

Information about the status of the building is collected in Block I₂.

Block I₂

I ₂ Building Status ☆	
1	<input type="checkbox"/> Under construction
2	<input type="checkbox"/> Occupied & operating
3	<input type="checkbox"/> Idle, not routinely used
4	<input type="checkbox"/> Under major renovation
5	<input type="checkbox"/> Vacant and secured
6	<input type="checkbox"/> Vacant and unsecured
7	<input type="checkbox"/> Being demolished
0	<input type="checkbox"/> Other
U	<input type="checkbox"/> Undetermined

Block I₂ captures the status of operation in the building involved in the fire.

Block I₃

I ₃ Building Height ☆	
Count the ROOF as part of the highest story	
<div style="border: 1px solid black; width: 100px; height: 20px; margin-bottom: 5px;"></div>	
Total number of stories at or above grade	
<div style="border: 1px solid black; width: 100px; height: 20px; margin-bottom: 5px;"></div>	
Total number of stories below grade	

In Block I₃ enter the total number of stories at or above grade level, then enter the total number of stories below grade level. Do not count normally inaccessible attics, attics with less than standing height, or the roof as a story. **Both parts**

of I₃ must be completed without regard to how many floors were involved in the fire.

Block I₄

I ₄	Main Floor Size ☆		NFIRS-3 Structure Fire
	<input type="text"/> , <input type="text"/> , <input type="text"/>		
	Total square feet		
OR			
<input type="text"/> , <input type="text"/>		BY	<input type="text"/> , <input type="text"/>
Length in feet			Width in feet

Block I₄ offers two options for indicating the main floor size. Enter either the number of square feet on the structure's main floor or its length and width in feet.

Section J

Section J: Fire Origin, Fire Spread, Number of Stories Damaged by Flame

In Section J you will record data that will help describe where the fire started, whether or not it spread, and the percentage of the structure that was damaged by flame.

Block J₁

J ₁	Fire Origin ☆
	<input type="text"/> Story of fire origin
	<input type="checkbox"/> Below grade

Enter the story on which the fire originated in Block J₁. This story number is assumed to be at or above grade unless the "Below Grade" box is marked. Count the ground level as story 1. In case of most residential basements, you would enter "1" for the "Floor of Origin" and then check the box to indicate it was below grade.

Block J₂

J₂	Fire Spread ☆
2	<input type="checkbox"/> Confined to room of origin
3	<input type="checkbox"/> Confined to floor of origin
4	<input type="checkbox"/> Confined to building of origin
5	<input type="checkbox"/> Beyond building of origin

Block J₂ captures the extent of fire spread in terms of how far the flame damage extended. The extent of flame damage is the area actually burned or charred and does not include the area receiving only heat, smoke, or water damage. Mark the box best describing the extent of fire spread. If the fire spread was confined to the object of origin (1) and the box in Block D₃ on the Fire Module was marked, do not mark the box here.

Block J₃

J₃	Number of Stories Damaged By Flame
Count the ROOF as part of the highest story	
<input type="text"/>	Number of stories w/ minor damage (1 to 24% flame damage)
<input type="text"/>	Number of stories w/ significant damage (25 to 49% flame damage)
<input type="text"/>	Number of stories w/ heavy damage (50 to 74% flame damage)
<input type="text"/>	Number of stories w/ extreme damage (75 to 100% flame damage)

Block J₃ captures the number of stories damaged by flame spread. Flame damage is the area actually burned or charred and does not include areas receiving only heat, smoke, or water damage.

Enter the number of stories damaged by flame according to the indicated criteria. If the roof was the only part of the structure that burned, count it as part of the top story.

Block K₂

K₂	<input type="text"/>	<input type="text"/>
	Type of material contributing most to flame spread	Required only if item contributing code is 00 or <70.

Complete this Block when the code for Type of Material is between 00 and 70. It is not necessary to supply this information when the type of material code is 70 or greater.

Section L

Section L: Presence of Detectors, Detector Type, Detector Power Supply, Detector Operation, Detector Effectiveness, Detector Failure Reason

Block L₁

L₁	Presence of Detectors ☆	
	(In area of the fire)	
	N <input type="checkbox"/> None Present	→ Skip to section M
	1 <input type="checkbox"/> Present	
U <input type="checkbox"/> Undetermined		

In Block L₁ you should indicate the existence of detectors in the area of the fire. If no detectors were present, mark "None Present" and skip to Section M.

Block L₂

L₂	Detector Type	
	1	<input type="checkbox"/> Smoke
	2	<input type="checkbox"/> Heat
	3	<input type="checkbox"/> Combination smoke - heat
	4	<input type="checkbox"/> Sprinkler, water flow detection
	5	<input type="checkbox"/> More than 1 type present
	0	<input type="checkbox"/> Other _____
	U	<input type="checkbox"/> Undetermined

Use Block L₂ “Detector Type” to identify the type of detector present in the area of fire origin. This field is **required** if the fire was within the area covered by the detector.

Block L₃

L ₃ Detector Power Supply	
1	<input type="checkbox"/> Battery only
2	<input type="checkbox"/> Hardwire only
3	<input type="checkbox"/> Plug in
4	<input type="checkbox"/> Hardwire with battery
5	<input type="checkbox"/> Plug in with battery
6	<input type="checkbox"/> Mechanical
7	<input type="checkbox"/> Multiple detectors & power supplies
0	<input type="checkbox"/> Other _____
U	<input type="checkbox"/> Undetermined

Use Block L₃ to describe the power supply for the detector that was found. This field is **required** if the fire was within the designed range of the detector.

Block L₄

L ₄ Detector Operation	
1	<input type="checkbox"/> Fire too small to activate
2	<input type="checkbox"/> Operated
3	<input type="checkbox"/> Failed to operate
U	<input type="checkbox"/> Undetermined

Complete Section L5

Complete Section L6

Block L₄ identifies whether or not the detection equipment worked. This field is **required** if the fire was within the designed range of the detector.

If the fire was too small to activate the detection equipment or the detector operation was undetermined then skip to Section M.

When the “Operated” Box (2) is marked, then a box in L₅ is marked to indicate the detector’s effectiveness and Block L₆ can be skipped. If the “Failed to operate” Box (3) is marked, then skip to Block L₆ to show the reason for detector failure.

Block L₅

L₅	Detector Effectiveness
Required if detector operated.	
1	<input type="checkbox"/> Alerted occupants, occupants responded
2	<input type="checkbox"/> Occupants failed to respond
3	<input type="checkbox"/> There were no occupants
4	<input type="checkbox"/> Failed to alert occupants
U	<input type="checkbox"/> Undetermined

In Block L₅ mark the box best describing the effectiveness of the detector. This field is **required** if you checked box (2) in L₄ (Operated).

Block L₆

L₆	Detector Failure Reason
Required if detector failed to operate	
1	<input type="checkbox"/> Power failure, shutoff or disconnect
2	<input type="checkbox"/> Improper installation or placement
3	<input type="checkbox"/> Defective
4	<input type="checkbox"/> Lack of maintenance, includes cleaning
5	<input type="checkbox"/> Battery missing or disconnected
6	<input type="checkbox"/> Battery discharged or dead
0	<input type="checkbox"/> Other _____
U	<input type="checkbox"/> Undetermined

In Block L₆ mark the box that best describes why the detector failed to operate or did not operate properly. this field is **required** if you checked box (3) in Block L₄ (Failed to operate).

Section M

Section M: Presence of Automatic Extinguishment System, Type of Automatic Extinguishment System, Automatic Extinguishment System Operation, Number of Sprinkler Heads, Automatic Extinguishment System Failure Reason

Block M₁

M₁ Presence of Automatic Extinguishment System ☆	
N	<input type="checkbox"/> None Present
1	<input type="checkbox"/> Present → Complete rest of Section M

You must mark one of the boxes in Block M₁ for all buildings or portable/mobile structure fires. If no automatic extinguishing system was present check the “None Present” box and skip the rest of Section M. Complete the other parts of Section M only if an extinguishing system was present.

Block M₂

M₂ Type of Automatic Extinguishment System	
Required if fire was within designed range of AES	
1	<input type="checkbox"/> Wet pipe sprinkler
2	<input type="checkbox"/> Dry pipe sprinkler
3	<input type="checkbox"/> Other sprinkler system
4	<input type="checkbox"/> Dry chemical system
5	<input type="checkbox"/> Foam system
6	<input type="checkbox"/> Halogen type system
7	<input type="checkbox"/> Carbon dioxide (CO ₂) system
0	<input type="checkbox"/> Other special hazard system
U	<input type="checkbox"/> Undetermined

In Block M₂ mark the box indicating the type of Automatic Extinguishment System (AES) present. If multiple systems are present, indicate the system designed to protect the hazard where the fire started. The field is required if the fire was within the designated range for the AES.

Block M₃

M₃	Automatic Extinguishment System Operation
Required if fire was within designed range	
1	<input type="checkbox"/> Operated & effective (go to M4)
2	<input type="checkbox"/> Operated & not effective (M4)
3	<input type="checkbox"/> Fire too small to activate
4	<input type="checkbox"/> Failed to operate (go to M5)
0	<input type="checkbox"/> Other
U	<input type="checkbox"/> Undetermined

In Block M₃ mark the box that indicates if the AES operated and was or was not effective. Effective does not necessarily mean complete extinguishment, but the system must at least contain and control the fire until the fire department can complete extinguishment.

If Box 1 or 2 are marked in M₃, use M₄ to record the number of sprinkler heads that operated (regardless of their effectiveness).

Block M₄

M₄	Number of Sprinkler Heads Operating
Required if system operated	
<div style="border-bottom: 1px solid black; width: 100px; margin-bottom: 5px;"></div>	
Number of sprinkler heads operating	

In Block M₄ fill in the total number of sprinkler heads that operated during the fire. This field is **required** if the sprinkler system activated.

Block M₅

M₅	Automatic Extinguishment System Failure Reason
Required if system failed	
1	<input type="checkbox"/> System shut off
2	<input type="checkbox"/> Not enough agent discharged
3	<input type="checkbox"/> Agent discharged but did not reach fire
4	<input type="checkbox"/> Wrong type of system
5	<input type="checkbox"/> Fire not in area protected
6	<input type="checkbox"/> System components damaged
7	<input type="checkbox"/> Lack of maintenance
8	<input type="checkbox"/> Manual intervention
0	<input type="checkbox"/> Other _____
U	<input type="checkbox"/> Undetermined
NFIRS-3 Revision 01/19/99	

In Block M₅ mark the box that describes why the automatic extinguishment system failed to operate or did not operate properly. This field is required if the system failed to operate. If you indicated in Block M₃ that the system “operated and not effective” Box 2 or “failed to operate” Box 4, it is required to record the reason for the problem in Block M₅.

Summary

SUMMARY

The Structure Fire Module is used along with the Fire Module to gather detailed information about larger fire incidents that involve building or portable/mobile structures. This module discussed strategies important to correctly completing it. Given the information presented, you should know how to document an incident that requires the completion of the Structure Fire Module.

EXAMPLE - RESIDENTIAL FIRE

Directions: Read the call information in the example below. Then look at the completed Structure Fire Module Form. Look at each section and follow along with the proper use of the information as applicable to the Structure Fire Module.

A smoke detector in the first floor hallway alerted the residents of a single family dwelling of a possible problem. They quickly exited out the front door and reported seeing smoke coming from the basement. Children playing with matches started a fire in a small stack of newspapers that were in the basement of a ranch-style home, 30 feet by 50 feet. Luckily they were uninjured. There was fire damage in the basement and smoke damage on the first floor. The detector was hardwired with a battery backup. There was a residential wet-pipe sprinkler system installed throughout the home. One sprinkler head activated.

NFIRS SELF STUDY PROGRAM 5.0
STRUCTURE FIRE MODULE: NFIRS 3

I1 Structure Type ☆ <small>If fire was in an enclosed building or a portable/mobile structure complete the rest of this form</small> 1 <input checked="" type="checkbox"/> Enclosed building 2 <input type="checkbox"/> Portable/mobile structure 3 <input type="checkbox"/> Open structure 4 <input type="checkbox"/> Air supported structure 5 <input type="checkbox"/> Tent 6 <input type="checkbox"/> Open platform (e.g. piers) 7 <input type="checkbox"/> Underground structure (work areas) 8 <input type="checkbox"/> Connective structure (e.g. fences) 9 <input type="checkbox"/> Other type of structure	I2 Building Status ☆ 1 <input type="checkbox"/> Under construction 2 <input checked="" type="checkbox"/> Occupied & operating 3 <input type="checkbox"/> Idle, not routinely used 4 <input type="checkbox"/> Under major renovation 5 <input type="checkbox"/> Vacant and secured 6 <input type="checkbox"/> Vacant and unsecured 7 <input type="checkbox"/> Being demolished 8 <input type="checkbox"/> Other U <input type="checkbox"/> Undetermined	I3 Building Height ☆ <small>Count the ROOF as part of the highest story</small> [0 0 1] <small>Total number of stories at or above grade</small> [0 1] <small>Total number of stories below grade</small>	I4 Main Floor Size ☆ <small>Total square feet</small> [] , [] , [] OR [0] , [0 3 0] BY [0] , [0 5 0] <small>Length in feet Width in feet</small>	NFIRS-3 Structure Fire
--	--	---	---	---

J1 Fire Origin ☆ [0 0 1] <input checked="" type="checkbox"/> Below grade <small>Story of fire origin</small>	J3 Number of Stories Damaged By Flame ☆ <small>Count the ROOF as part of the highest story</small> [0 0 1] Number of stories w/ minor damage <small>(1 to 24% flame damage)</small> [0 0 0] Number of stories w/ significant damage <small>(25 to 49% flame damage)</small> [0 0 0] Number of stories w/ heavy damage <small>(50 to 74% flame damage)</small> [0 0 0] Number of stories w/ extreme damage <small>(75 to 100% flame damage)</small>	K Material Contributing Most To Flame Spread ☆ <input checked="" type="checkbox"/> Check if no flame spread OR same as material first ignited OR unable to determine ➔ Skip to Section L K1 [] [] <small>Item contributing most to flame spread</small> K2 [] [] <small>Type of material contributing most to flame spread Required only if item contributing code is 00 or <70.</small>
J2 Fire Spread ☆ 2 <input checked="" type="checkbox"/> Confined to room of origin 3 <input type="checkbox"/> Confined to floor of origin 4 <input type="checkbox"/> Confined to building of origin 5 <input type="checkbox"/> Beyond building of origin		

L1 Presence of Detectors ☆ <small>(In area of the fire)</small> N <input type="checkbox"/> None Present ➔ Skip to section M 1 <input checked="" type="checkbox"/> Present U <input type="checkbox"/> Undetermined	L3 Detector Power Supply ☆ 1 <input type="checkbox"/> Battery only 2 <input type="checkbox"/> Hardwire only 3 <input type="checkbox"/> Plug in 4 <input checked="" type="checkbox"/> Hardwire with battery 5 <input type="checkbox"/> Plug in with battery 6 <input type="checkbox"/> Mechanical 7 <input type="checkbox"/> Multiple detectors & power supplies 0 <input type="checkbox"/> Other _____ U <input type="checkbox"/> Undetermined	L5 Detector Effectiveness ☆ <small>Required if detector operated.</small> 1 <input checked="" type="checkbox"/> Alerted occupants, occupants responded 2 <input type="checkbox"/> Occupants failed to respond 3 <input type="checkbox"/> There were no occupants 4 <input type="checkbox"/> Failed to alert occupants U <input type="checkbox"/> Undetermined
L2 Detector Type ☆ 1 <input checked="" type="checkbox"/> Smoke 2 <input type="checkbox"/> Heat 3 <input type="checkbox"/> Combination smoke - heat 4 <input type="checkbox"/> Sprinkler, water flow detection 5 <input type="checkbox"/> More than 1 type present 0 <input checked="" type="checkbox"/> Other _____ U <input type="checkbox"/> Undetermined	L4 Detector Operation ☆ 1 <input type="checkbox"/> Fire too small to activate 2 <input checked="" type="checkbox"/> Operated ➔ Complete Section L5 3 <input type="checkbox"/> Failed to operate ➔ Complete Section L6 U <input type="checkbox"/> Undetermined	
L6 Detector Failure Reason ☆ <small>Required if detector failed to operate</small> 1 <input type="checkbox"/> Power failure, shutoff or disconnect 2 <input type="checkbox"/> Improper installation or placement 3 <input type="checkbox"/> Defective 4 <input type="checkbox"/> Lack of maintenance, includes cleaning 5 <input type="checkbox"/> Battery missing or disconnected 6 <input type="checkbox"/> Battery discharged or dead 0 <input type="checkbox"/> Other U <input type="checkbox"/> Undetermined		

M1 Presence of Automatic Extinguishment System ☆ N <input type="checkbox"/> None Present ➔ Complete rest of Section M 1 <input checked="" type="checkbox"/> Present	M3 Automatic Extinguishment System Operation ☆ <small>Required if fire was within designed range</small> 1 <input checked="" type="checkbox"/> Operated & effective (go to M4) 2 <input type="checkbox"/> Operated & not effective (M4) 3 <input type="checkbox"/> Fire too small to activate 4 <input type="checkbox"/> Failed to operate (go to M5) 0 <input type="checkbox"/> Other U <input type="checkbox"/> Undetermined	M5 Automatic Extinguishment System Failure Reason ☆ <small>Required if system failed</small> 1 <input type="checkbox"/> System shut off 2 <input type="checkbox"/> Not enough agent discharged 3 <input type="checkbox"/> Agent discharged but did not reach fire 4 <input type="checkbox"/> Wrong type of system 5 <input type="checkbox"/> Fire not in area protected 6 <input type="checkbox"/> System components damaged 7 <input type="checkbox"/> Lack of maintenance 8 <input type="checkbox"/> Manual intervention 0 <input type="checkbox"/> Other U <input type="checkbox"/> Undetermined
M2 Type of Automatic Extinguishment System ☆ <small>Required if fire was within designed range of AES</small> 1 <input checked="" type="checkbox"/> Wet pipe sprinkler 2 <input type="checkbox"/> Dry pipe sprinkler 3 <input type="checkbox"/> Other sprinkler system 4 <input type="checkbox"/> Dry chemical system 5 <input type="checkbox"/> Foam system 6 <input type="checkbox"/> Halogen type system 7 <input type="checkbox"/> Carbon dioxide (CO ₂) system 0 <input type="checkbox"/> Other special hazard system U <input type="checkbox"/> Undetermined	M4 Number of Sprinkler Heads Operating ☆ <small>Required if system operated</small> [0 0 1] <small>Number of sprinkler heads operating</small>	

NFIRS-3 Revision 01/19/99

EXERCISE SCENARIO 3-1 - WAREHOUSE FIRE

Directions: Read the call information in the exercise below. Use the information provided to complete the Structure Fire Module form. Compare your work to the answers provided on the subsequent completed Structure Fire Module form. If your answers are different from the ones provided, read over the Structure Fire Module again.

A fire occurred on the fifth floor of an eight story, vacant and secured warehouse. The 200-foot by 100-foot fifth floor was damaged by the fire. The sixth story was damaged by smoke. The warehouse was protected by a wet-pipe sprinkler system with water flow detection alarms. Detectors were hardwired through the main power box on the building's north end. Power to the warehouse was knocked out by an electrical storm moving through the area. Because it was after eight in the evening, no one was in the building to notice that the power was off or that a fire had started near where welders had been working on storage racks. Fortunately, two sprinkler heads activated and quickly extinguished the fire.

**NFIRS SELF STUDY PROGRAM 5.0
STRUCTURE FIRE MODULE: NFIRS 3**

I1 Structure Type ☆ <small>If fire was in an enclosed building or a portable/mobile structure complete the rest of this form</small> 1 <input type="checkbox"/> Enclosed building 2 <input type="checkbox"/> Portable/mobile structure 3 <input type="checkbox"/> Open structure 4 <input type="checkbox"/> Air supported structure 5 <input type="checkbox"/> Tent 6 <input type="checkbox"/> Open platform (e.g. piers) 7 <input type="checkbox"/> Underground structure (work areas) 8 <input type="checkbox"/> Connective structure (e.g. fences) 0 <input type="checkbox"/> Other type of structure	I2 Building Status ☆ 1 <input type="checkbox"/> Under construction 2 <input type="checkbox"/> Occupied & operating 3 <input type="checkbox"/> Idle, not routinely used 4 <input type="checkbox"/> Under major renovation 5 <input type="checkbox"/> Vacant and secured 6 <input type="checkbox"/> Vacant and unsecured 7 <input type="checkbox"/> Being demolished 0 <input type="checkbox"/> Other U <input type="checkbox"/> Undetermined	I3 Building Height ☆ <small>Count the ROOF as part of the highest story</small> <div style="border: 1px solid black; width: 100px; height: 20px; margin-bottom: 5px;"></div> <small>Total number of stories at or above grade</small> <div style="border: 1px solid black; width: 100px; height: 20px; margin-bottom: 5px;"></div> <small>Total number of stories below grade</small>	I4 Main Floor Size ☆ <div style="border: 1px solid black; width: 100px; height: 20px; margin-bottom: 5px;"></div> <small>Total square feet</small> OR <div style="border: 1px solid black; width: 100px; height: 20px; margin-bottom: 5px;"></div> <small>Length in feet</small> BY <div style="border: 1px solid black; width: 100px; height: 20px; margin-bottom: 5px;"></div> <small>Width in feet</small>	NFIRS-3 Structure Fire
---	---	---	--	---------------------------------------

J1 Fire Origin ☆ <div style="border: 1px solid black; width: 100px; height: 20px; margin-bottom: 5px;"></div> <small>Story of fire origin</small> <input type="checkbox"/> Below grade	J3 Number of Stories Damaged By Flame ☆ <small>Count the ROOF as part of the highest story</small> <div style="border: 1px solid black; width: 100px; height: 20px; margin-bottom: 5px;"></div> <small>Number of stories w/ minor damage (1 to 24% flame damage)</small> <div style="border: 1px solid black; width: 100px; height: 20px; margin-bottom: 5px;"></div> <small>Number of stories w/ significant damage (25 to 49% flame damage)</small> <div style="border: 1px solid black; width: 100px; height: 20px; margin-bottom: 5px;"></div> <small>Number of stories w/ heavy damage (50 to 74% flame damage)</small> <div style="border: 1px solid black; width: 100px; height: 20px; margin-bottom: 5px;"></div> <small>Number of stories w/ extreme damage (75 to 100% flame damage)</small>	K Material Contributing Most To Flame Spread <input type="checkbox"/> Check if no flame spread OR same as material first ignited OR unable to determine ➔ Skip to Section L K1 <div style="border: 1px solid black; width: 100px; height: 20px; margin-bottom: 5px;"></div> <small>Item contributing most to flame spread</small> K2 <div style="border: 1px solid black; width: 100px; height: 20px; margin-bottom: 5px;"></div> <small>Type of material contributing most to flame spread</small> <small>Required only if item contributing code is 00 or <70.</small>
J2 Fire Spread ☆ 2 <input type="checkbox"/> Confined to room of origin 3 <input type="checkbox"/> Confined to floor of origin 4 <input type="checkbox"/> Confined to building of origin 5 <input type="checkbox"/> Beyond building of origin		

L1 Presence of Detectors ☆ <small>(In area of the fire)</small> N <input type="checkbox"/> None Present ➔ Skip to section M 1 <input type="checkbox"/> Present U <input type="checkbox"/> Undetermined	L3 Detector Power Supply 1 <input type="checkbox"/> Battery only 2 <input type="checkbox"/> Hardwire only 3 <input type="checkbox"/> Plug in 4 <input type="checkbox"/> Hardwire with battery 5 <input type="checkbox"/> Plug in with battery 6 <input type="checkbox"/> Mechanical 7 <input type="checkbox"/> Multiple detectors & power supplies 0 <input type="checkbox"/> Other _____ U <input type="checkbox"/> Undetermined	L5 Detector Effectiveness <small>Required if detector operated.</small> 1 <input type="checkbox"/> Alerted occupants, occupants responded 2 <input type="checkbox"/> Occupants failed to respond 3 <input type="checkbox"/> There were no occupants 4 <input type="checkbox"/> Failed to alert occupants U <input type="checkbox"/> Undetermined
L2 Detector Type 1 <input type="checkbox"/> Smoke 2 <input type="checkbox"/> Heat 3 <input type="checkbox"/> Combination smoke - heat 4 <input type="checkbox"/> Sprinkler, water flow detection 5 <input type="checkbox"/> More than 1 type present 0 <input type="checkbox"/> Other _____ U <input type="checkbox"/> Undetermined	L4 Detector Operation 1 <input type="checkbox"/> Fire too small to activate 2 <input type="checkbox"/> Operated Complete Section L5 3 <input type="checkbox"/> Failed to operate Complete Section L6 U <input type="checkbox"/> Undetermined	L6 Detector Failure Reason <small>Required if detector failed to operate</small> 1 <input type="checkbox"/> Power failure, shutoff or disconnect 2 <input type="checkbox"/> Improper installation or placement 3 <input type="checkbox"/> Defective 4 <input type="checkbox"/> Lack of maintenance, includes cleaning 5 <input type="checkbox"/> Battery missing or disconnected 6 <input type="checkbox"/> Battery discharged or dead 0 <input type="checkbox"/> Other _____ U <input type="checkbox"/> Undetermined

M1 Presence of Automatic Extinguishment System ☆ N <input type="checkbox"/> None Present ➔ Complete rest of Section M 1 <input type="checkbox"/> Present	M3 Automatic Extinguishment System Operation <small>Required if fire was within designed range</small> 1 <input type="checkbox"/> Operated & effective (go to M4) 2 <input type="checkbox"/> Operated & not effective (M4) 3 <input type="checkbox"/> Fire too small to activate 4 <input type="checkbox"/> Failed to operate (go to M5) 0 <input type="checkbox"/> Other U <input type="checkbox"/> Undetermined
M2 Type of Automatic Extinguishment System <small>Required if fire was within designed range of AES</small> 1 <input type="checkbox"/> Wet pipe sprinkler 2 <input type="checkbox"/> Dry pipe sprinkler 3 <input type="checkbox"/> Other sprinkler system 4 <input type="checkbox"/> Dry chemical system 5 <input type="checkbox"/> Foam system 6 <input type="checkbox"/> Halogen type system 7 <input type="checkbox"/> Carbon dioxide (CO ₂) system 0 <input type="checkbox"/> Other special hazard system U <input type="checkbox"/> Undetermined	M4 Number of Sprinkler Heads Operating <small>Required if system operated</small> <div style="border: 1px solid black; width: 100px; height: 20px; margin-bottom: 5px;"></div> <small>Number of sprinkler heads operating</small>
M5 Automatic Extinguishment System Failure Reason <small>Required if system failed</small> 1 <input type="checkbox"/> System shut off 2 <input type="checkbox"/> Not enough agent discharged 3 <input type="checkbox"/> Agent discharged but did not reach fire 4 <input type="checkbox"/> Wrong type of system 5 <input type="checkbox"/> Fire not in area protected 6 <input type="checkbox"/> System components damaged 7 <input type="checkbox"/> Lack of maintenance 8 <input type="checkbox"/> Manual intervention 0 <input type="checkbox"/> Other _____ U <input type="checkbox"/> Undetermined	

NFIRS-3 Revision 01/19/99

**NFIRS SELF STUDY PROGRAM 5.0
STRUCTURE FIRE MODULE: NFIRS 3**

I1 Structure Type ☆ If fire was in an enclosed building or a portable/mobile structure complete the rest of this form 1 <input checked="" type="checkbox"/> Enclosed building 2 <input type="checkbox"/> Portable/mobile structure 3 <input type="checkbox"/> Open structure 4 <input type="checkbox"/> Air supported structure 5 <input type="checkbox"/> Tent 6 <input type="checkbox"/> Open platform (e.g. piers) 7 <input type="checkbox"/> Underground structure (work areas) 8 <input type="checkbox"/> Connective structure (e.g. fences) 0 <input type="checkbox"/> Other type of structure	I2 Building Status ☆ 1 <input type="checkbox"/> Under construction 2 <input type="checkbox"/> Occupied & operating 3 <input type="checkbox"/> Idle, not routinely used 4 <input type="checkbox"/> Under major renovation 5 <input checked="" type="checkbox"/> Vacant and secured 6 <input type="checkbox"/> Vacant and unsecured 7 <input type="checkbox"/> Being demolished 0 <input type="checkbox"/> Other U <input type="checkbox"/> Undetermined	I3 Building Height ☆ Count the ROOF as part of the highest story [0 0 8] Total number of stories at or above grade [0 0 1] Total number of stories below grade	I4 Main Floor Size ☆ <div style="border: 1px solid black; padding: 2px; width: fit-content; float: right;">NFIRS-3 Structure Fire</div> [] , [] , [] Total square feet OR [0] , [2 0 0] BY [0] , [1 0 0] Length in feet Width in feet
---	--	--	--

J1 Fire Origin ☆ [0 0 5] Story of fire origin <input type="checkbox"/> Below grade	J3 Number of Stories Damaged By Flame ☆ Count the ROOF as part of the highest story [0 0 1] Number of stories w/ minor damage (1 to 24% flame damage) [0 0 0] Number of stories w/ significant damage (25 to 49% flame damage) [0 0 0] Number of stories w/ heavy damage (50 to 74% flame damage) [0 0 0] Number of stories w/ extreme damage (75 to 100% flame damage)	K Material Contributing Most To Flame Spread ☆ <input checked="" type="checkbox"/> Check if no flame spread OR same as material first ignited OR unable to determine ➔ Skip to Section L K1 [] [] Item contributing most to flame spread K2 [] [] Type of material contributing most to flame spread Required only if item contributing code is 00 or <70.
J2 Fire Spread ☆ 2 <input type="checkbox"/> Confined to room of origin 3 <input checked="" type="checkbox"/> Confined to floor of origin 4 <input type="checkbox"/> Confined to building of origin 5 <input type="checkbox"/> Beyond building of origin		

L1 Presence of Detectors ☆ (In area of the fire) N <input type="checkbox"/> None Present ➔ Skip to section M 1 <input checked="" type="checkbox"/> Present U <input type="checkbox"/> Undetermined	L3 Detector Power Supply ☆ 1 <input type="checkbox"/> Battery only 2 <input checked="" type="checkbox"/> Hardwire only 3 <input type="checkbox"/> Plug in 4 <input type="checkbox"/> Hardwire with battery 5 <input type="checkbox"/> Plug in with battery 6 <input type="checkbox"/> Mechanical 7 <input type="checkbox"/> Multiple detectors & power supplies 0 <input type="checkbox"/> Other _____ U <input type="checkbox"/> Undetermined	L5 Detector Effectiveness ☆ Required if detector operated. 1 <input type="checkbox"/> Alerted occupants, occupants responded 2 <input type="checkbox"/> Occupants failed to respond 3 <input type="checkbox"/> There were no occupants 4 <input checked="" type="checkbox"/> Failed to alert occupants U <input type="checkbox"/> Undetermined
L2 Detector Type ☆ 1 <input type="checkbox"/> Smoke 2 <input type="checkbox"/> Heat 3 <input type="checkbox"/> Combination smoke - heat 4 <input type="checkbox"/> Sprinkler, water flow detection 5 <input checked="" type="checkbox"/> More than 1 type present 0 <input type="checkbox"/> Other _____ U <input type="checkbox"/> Undetermined	L4 Detector Operation ☆ 1 <input type="checkbox"/> Fire too small to activate 2 <input checked="" type="checkbox"/> Operated ➔ Complete Section L5 3 <input type="checkbox"/> Failed to operate ➔ Complete Section L6 U <input type="checkbox"/> Undetermined	
L6 Detector Failure Reason ☆ Required if detector failed to operate 1 <input checked="" type="checkbox"/> Power failure, shutoff or disconnect 2 <input checked="" type="checkbox"/> Improper installation or placement 3 <input type="checkbox"/> Defective 4 <input type="checkbox"/> Lack of maintenance, includes cleaning 5 <input type="checkbox"/> Battery missing or disconnected 6 <input type="checkbox"/> Battery discharged or dead 0 <input type="checkbox"/> Other _____ U <input type="checkbox"/> Undetermined		

M1 Presence of Automatic Extinguishment System ☆ N <input type="checkbox"/> None Present ➔ Complete rest of Section M 1 <input checked="" type="checkbox"/> Present	M3 Automatic Extinguishment System Operation ☆ Required if fire was within designed range 1 <input checked="" type="checkbox"/> Operated & effective (go to M4) 2 <input type="checkbox"/> Operated & not effective (M4) 3 <input type="checkbox"/> Fire too small to activate 4 <input type="checkbox"/> Failed to operate (go to M5) 0 <input type="checkbox"/> Other U <input type="checkbox"/> Undetermined	M5 Automatic Extinguishment System Failure Reason ☆ Required if system failed 1 <input type="checkbox"/> System shut off 2 <input type="checkbox"/> Not enough agent discharged 3 <input type="checkbox"/> Agent discharged but did not reach fire 4 <input type="checkbox"/> Wrong type of system 5 <input type="checkbox"/> Fire not in area protected 6 <input type="checkbox"/> System components damaged 7 <input type="checkbox"/> Lack of maintenance 8 <input type="checkbox"/> Manual intervention 0 <input type="checkbox"/> Other _____ U <input type="checkbox"/> Undetermined
M2 Type of Automatic Extinguishment System ☆ Required if fire was within designed range of AES 1 <input checked="" type="checkbox"/> Wet pipe sprinkler 2 <input type="checkbox"/> Dry pipe sprinkler 3 <input type="checkbox"/> Other sprinkler system 4 <input type="checkbox"/> Dry chemical system 5 <input type="checkbox"/> Foam system 6 <input type="checkbox"/> Halogen type system 7 <input type="checkbox"/> Carbon dioxide (CO ₂) system 0 <input type="checkbox"/> Other special hazard system U <input type="checkbox"/> Undetermined	M4 Number of Sprinkler Heads Operating ☆ Required if system operated [0 0 2] Number of sprinkler heads operating	

NFIRS-3 Revision 01/19/99

EXERCISE SCENARIO 3-2: CARY STREET FIRE

Directions: Read the call information in the exercise below. Use the information provided to complete the entire Structure Fire Module form and the other required forms. Compare your work to the answers provided in Appendix A. If your answers are different from the ones provided, read over the Structure Fire Module again.

The Alberta Fire Department (FDID 92188) responded to a reported house fire at 5 East Cary Street, Brunswick, Virginia 23351 on May 1. The dispatcher assigned the incident (#5433) to Engine Co. 3 from Shift A. The unit received the alarm at 12:53 p.m. and arrived at the scene at 1:05 p.m. with a four-person engine crew, a two-person truck crew, and a two-person pumper crew. The owner of the single family dwelling, Mrs. Christy Gordon, said that she was warming her lunch on the stove when the grease from the pan began to burn. The gas stove was a Whirlpool, Model RF330PXVN, Serial Number F925888840, Year 2000. The fire spread from the pan to the curtains. She fell asleep upstairs and was alerted when the hardwired smoke detector activated. The flame damage was confined to the kitchen. The 2,000 square feet, two-story home was filled with smoke in the other rooms. She called 911. The firefighters extinguished the fire and remove smoke from the other rooms. The fire was brought under controlled at 1:25 p.m. There was \$24,000 fire loss to property and \$9,600 content loss. The value of the property was \$161,000 and the content value was \$80,400. The last unit cleared the scene at 2:40 p.m. FF1 Adam C. Wallner, Badge No. 224, completed the report after returning to Station No. 2. Captain Tonya S. Gordon, Badge No. 105, was the officer in charge. The fire department keeps records on the location of all responses. The incident was in Census Tract 501.10, District A12.

A FDID ☆ State ☆ Incident Date MM DD YYYY ☆ Station Incident Number ☆ Exposure ☆		<input type="checkbox"/> Delete <input type="checkbox"/> Change <input type="checkbox"/> No Activity		NFIRS - 1 Basic																															
B Location ☆ <input type="checkbox"/> Check this box to indicate that the address for this incident is provided on the Wildland Fire Module in Section B "Alternative Location Specification". Use only																																			
<table style="width: 100%;"> <tr> <td style="width: 20%;"><input type="checkbox"/> Street address</td> <td style="width: 20%;">Number/Milepost</td> <td style="width: 10%;">Prefix</td> <td style="width: 30%;">Street or Highway</td> <td style="width: 10%;">Street Type</td> <td style="width: 10%;">Suffix</td> </tr> <tr> <td><input type="checkbox"/> Intersection in front of</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td><input type="checkbox"/> Rear of</td> <td>Apt./Suite/Room</td> <td>City</td> <td>State</td> <td>Zip Code</td> <td></td> </tr> <tr> <td><input type="checkbox"/> Adjacent to</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td><input type="checkbox"/> Directions</td> <td colspan="5">Cross street or directions, as applicable</td> </tr> </table>						<input type="checkbox"/> Street address	Number/Milepost	Prefix	Street or Highway	Street Type	Suffix	<input type="checkbox"/> Intersection in front of						<input type="checkbox"/> Rear of	Apt./Suite/Room	City	State	Zip Code		<input type="checkbox"/> Adjacent to						<input type="checkbox"/> Directions	Cross street or directions, as applicable				
<input type="checkbox"/> Street address	Number/Milepost	Prefix	Street or Highway	Street Type	Suffix																														
<input type="checkbox"/> Intersection in front of																																			
<input type="checkbox"/> Rear of	Apt./Suite/Room	City	State	Zip Code																															
<input type="checkbox"/> Adjacent to																																			
<input type="checkbox"/> Directions	Cross street or directions, as applicable																																		
C Incident Type ☆ Incident Type		E1 Dates & Times Midnight is 0000 Month Day Year Hour Min Check boxes if dates are the same as Alarm Date. <input type="checkbox"/> Alarm ☆ <input type="checkbox"/> Arrival ☆ <input type="checkbox"/> Controlled <input type="checkbox"/> Last Unit Cleared		E2 Shifts & Alarms Local Option Shift or platoon Alarms District E3 Special Studies Local Option Special Study ID# Special Study Value																															
D Aid Given or Received ☆ 1 <input type="checkbox"/> Mutual aid received 2 <input type="checkbox"/> Automatic aid recvd. 3 <input type="checkbox"/> Mutual aid given 4 <input type="checkbox"/> Automatic aid given 5 <input type="checkbox"/> Other aid given N <input type="checkbox"/> None		Their FDID Their State Their Incident Number																																	
F Actions Taken ☆ Primary Action Taken (1) Additional Action Taken (2) Additional Action Taken (3)		G1 Resources ☆ <input type="checkbox"/> Check this box and skip this section if an Apparatus or Personnel form is used. Apparatus Personnel Suppression EMS Other <input type="checkbox"/> Check box if resource counts include aid received resources.		G2 Estimated Dollar Losses & Values LOSSES: Required for all fires if known. Optional for non Property \$ Contents \$ PRE-INCIDENT VALUE: Optional Property \$ Contents \$																															
Completed Modules <input type="checkbox"/> Fire-2 <input type="checkbox"/> Structure-3 <input type="checkbox"/> Civilian Fire Cas.-4 <input type="checkbox"/> Fire Serv. Casualty-5 <input type="checkbox"/> EMS-6 <input type="checkbox"/> HazMat-7 <input type="checkbox"/> Wildland Fire-8 <input type="checkbox"/> Apparatus-9 <input type="checkbox"/> Personnel-10 <input type="checkbox"/> Arson-11		H1 Casualties ☆ Deaths Injuries Fire Service Civilian H2 Detector Required for confined fires. 1 <input type="checkbox"/> Detector alerted occupants 2 <input type="checkbox"/> Detector did not alert them U <input type="checkbox"/> Unknown		H3 Hazardous Materials Release N <input type="checkbox"/> None 1 Natural gas: slow leak, no evacuation or HazMat actions 2 Propane gas: <21 lb. tank (as in home BBQ grill) 3 Gasoline: vehicle fuel tank or portable container 4 Kerosene: fuel burning equipment or portable storage 5 Diesel fuel/fuel oil: vehicle fuel tank or portable storage 6 Household solvents: home/office spill, cleanup only 7 Motor oil: from engine or portable container 8 Paint: from paint cans totaling <55 gallons 9 Other: Special HazMat actions required or spill > 55 gal., Please complete the HazMat form																															
I Mixed Use Property NN <input type="checkbox"/> Not mixed 10 Assembly use 20 Education use 33 Medical use 40 Residential use 51 Row of stores 53 Enclosed mall 58 Business & residential 59 Office use 60 Industrial use 63 Military use 65 Farm use 00 Other mixed use		J Property Use Structures 131 Church, place of worship 161 Restaurant or cafeteria 162 Bar/tavern or nightclub 213 Elementary school or kindergart. 215 High school or junior high 241 College, adult ed. 311 Care facility for the aged 331 Hospital Outside 124 Playground or park 655 Crops or orchard 669 Forest (timberland) 807 Outdoor storage area 919 Dump or sanitary landfill 931 Open land or field																																	
341 Clinic, clinic type infirmary 342 Doctor/dentist office 361 Prison or jail, not juvenile 419 1- or 2- family dwelling 429 Multi-family dwelling 439 Rooming/boarded house 449 Commercial hotel or motel 459 Residential, board and care 464 Dormitory/barracks 519 Food and beverage sales		539 Household goods, sales, repairs 579 Motor vehicle/boat sales/repairs 571 Gas or service station 599 Business office 615 Electric generating plant 629 Laboratory/science lab 700 Manufacturing plant 819 Livestock/poultry storage (barn) 882 Non-residential parking garage 891 Warehouse 981 Construction site 984 Industrial plant yard																																	

**NFIRS SELF STUDY PROGRAM 5.0
STRUCTURE FIRE MODULE: NFIRS 3**

K1 Person/Entity Involved

Local Option ☐ Business name (if applicable) _____ Area Code _____ Phone Number _____

☐ Check this box if same address as incident location. Then skip the three duplicate address lines.

Mr., Ms., Mrs. First Name _____ MI _____ Last Name _____ Suffix _____

Number _____ Prefix _____ Street or Highway _____ Street Type _____ Suffix _____

Post Office Box _____ Apt./Suite/Room _____ City _____

State _____ Zip Code _____

☐ More people involved? Check this box and attach Supplemental Forms (NFIRS-1S) as necessary.

K2 Owner

Local Option ☐ Same as person involved? Then check this box and skip the rest of this section.

Business name (if applicable) _____ Area Code _____ Phone Number _____

☐ Check this box if same address as incident location. Then skip the three duplicate address lines.

Mr., Ms., Mrs. First Name _____ MI _____ Last Name _____ Suffix _____

Number _____ Prefix _____ Street or Highway _____ Street Type _____ Suffix _____

Post Office Box _____ Apt./Suite/Room _____ City _____

State _____ Zip Code _____


L Remarks:

Local Option ☐

Fire Module Required?

Check the box that applies and then complete the additional Fire mod. based on Incident Type as follows:

<input type="checkbox"/> Buildings 111	Complete Fire & Structure
<input type="checkbox"/> Special structure 112	Complete Fire Mod. & the I block on Structure Module
<input type="checkbox"/> Confined 113-118	Complete Basic Module
<input type="checkbox"/> Mobile Property 120-123	Complete Fire Module
<input type="checkbox"/> Vehicle 130-138	Complete Fire Module
<input type="checkbox"/> Vegetation 140-143	Complete Fire or Wildland
<input type="checkbox"/> Outside rubbish fire 150-155	Complete Basic Module
<input type="checkbox"/> Special outside fire 160-164	Complete Fire Module
<input type="checkbox"/> Crop fire 170-173	Complete Fire Module

 ITEMS WITH A ★ MUST ALWAYS BE COMPLETED!

☐ More remarks? Check this box and attach Supplemental Forms (NFIRS-1S) as necessary.

M Authorization

Check box if same as Officer in charge. ☐

Officer in charge ID _____ Signature _____ Position or rank _____ Assignment _____ Month _____ Day _____ Year _____

Member making report ID _____ Signature _____ Position or rank _____ Assignment _____ Month _____ Day _____ Year _____

**NFIRS SELF STUDY PROGRAM 5.0
STRUCTURE FIRE MODULE: NFIRS 3**

Complete this side for all fires				<input type="checkbox"/> Delete <input type="checkbox"/> Change	NFIRS - 2 Fire	
A	FDID <input style="width: 40px;" type="text"/>	State <input style="width: 40px;" type="text"/>	Incident Date <input style="width: 40px;" type="text"/>	Station <input style="width: 40px;" type="text"/>	Incident Number <input style="width: 40px;" type="text"/>	Exposure <input style="width: 40px;" type="text"/>
B Property Details	B1 <input style="width: 40px;" type="text"/> <input type="checkbox"/> Not Residential Estimated number of residential living units in building of origin <i>whether or not all units became involved</i>					C On-Site Materials or Products <input type="checkbox"/> None Enter up to three codes. Check one box for each code entered. On-site material (1) <input style="width: 40px;" type="text"/>
B2	<input style="width: 40px;" type="text"/> <input type="checkbox"/> Buildings not involved Number of buildings involved					On-site material (2) <input style="width: 40px;" type="text"/>
B3	<input style="width: 40px;" type="text"/> , <input style="width: 40px;" type="text"/> <input type="checkbox"/> None Acres burned (outside fires) <input type="checkbox"/> Less than one acre					On-site material (3) <input style="width: 40px;" type="text"/>
D Ignition	E1 Cause of Ignition <input type="checkbox"/> Check box if this is an exposure report. ➔ Skip to Section G 1 <input type="checkbox"/> Intentional 2 <input type="checkbox"/> Unintentional 3 <input type="checkbox"/> Failure of equipment or heat source 4 <input type="checkbox"/> Act of nature 5 <input type="checkbox"/> Cause under investigation U <input type="checkbox"/> Cause undetermined after investigation					
D1	<input style="width: 40px;" type="text"/> <input type="checkbox"/> Check box if fire spread was confined to object of origin Area of fire origin <input style="width: 40px;" type="text"/>					E3 Human Factors Contributing To Ignition
D2	<input style="width: 40px;" type="text"/> <input type="checkbox"/> Check box if fire spread was confined to object of origin Heat source <input style="width: 40px;" type="text"/>					Check all applicable boxes <input type="checkbox"/> None 1 <input type="checkbox"/> Asleep 2 <input type="checkbox"/> Possibly impaired by alcohol or drugs 3 <input type="checkbox"/> Unattended person 4 <input type="checkbox"/> Possibly mentally disabled 5 <input type="checkbox"/> Physically disabled 6 <input type="checkbox"/> Multiple persons involved
D3	<input style="width: 40px;" type="text"/> <input type="checkbox"/> Check box if fire spread was confined to object of origin Item first ignited <input style="width: 40px;" type="text"/>					7 <input type="checkbox"/> Age was a factor Estimated age of person involved <input style="width: 40px;" type="text"/>
D4	<input style="width: 40px;" type="text"/> <input type="checkbox"/> Check box if fire spread was confined to object of origin Type of material first ignited <input style="width: 40px;" type="text"/>					1 <input type="checkbox"/> Male 2 <input type="checkbox"/> Female
F1 Equipment Involved In Ignition	F2 Equipment Power Source <input style="width: 40px;" type="text"/> <input style="width: 40px;" type="text"/> Equipment Power Source					G Fire Suppression Factors
<input type="checkbox"/> None ➔ If equipment was not involved, skip to Section G <input style="width: 40px;" type="text"/> Equipment Involved Brand <input style="width: 40px;" type="text"/> Model <input style="width: 40px;" type="text"/> Serial # <input style="width: 40px;" type="text"/> Year <input style="width: 40px;" type="text"/>	F3 Equipment Portability 1 <input type="checkbox"/> Portable 2 <input type="checkbox"/> Stationary Portable equipment normally can be moved by one person, is designed to be used in multiple locations, and requires no tools to install.					
Fire suppression factor (1) <input style="width: 40px;" type="text"/>						
Fire suppression factor (2) <input style="width: 40px;" type="text"/>						
Fire suppression factor (3) <input style="width: 40px;" type="text"/>						
H1 Mobile Property Involved	H2 Mobile Property Type & Make <input style="width: 40px;" type="text"/> <input style="width: 40px;" type="text"/> Mobile property type <input style="width: 40px;" type="text"/> <input style="width: 40px;" type="text"/> Mobile property make <input style="width: 40px;" type="text"/> <input style="width: 40px;" type="text"/> Year					Local Use
<input type="checkbox"/> None 1 <input type="checkbox"/> Not involved in ignition, but burned 2 <input type="checkbox"/> Involved in ignition, but did not burn 3 <input type="checkbox"/> Involved in ignition and burned	<input style="width: 40px;" type="text"/> Mobile property model <input style="width: 40px;" type="text"/> <input style="width: 40px;" type="text"/> <input style="width: 40px;" type="text"/> License Plate Number State VIN Number					
<input type="checkbox"/> Pre-Fire Plan Available Some of the information presented in this report may be based upon reports from other agencies: <input type="checkbox"/> Arson report attached <input type="checkbox"/> Police report attached <input type="checkbox"/> Coroner report attached <input type="checkbox"/> Other reports attached						
Structure fire? Please be sure to complete the other side of this form.						

**NFIRS SELF STUDY PROGRAM 5.0
STRUCTURE FIRE MODULE: NFIRS 3**

I1 Structure Type ☆ <small>If fire was in an enclosed building or a portable/mobile structure complete the rest of this form</small> 1 <input type="checkbox"/> Enclosed building 2 <input type="checkbox"/> Portable/mobile structure 3 <input type="checkbox"/> Open structure 4 <input type="checkbox"/> Air supported structure 5 <input type="checkbox"/> Tent 6 <input type="checkbox"/> Open platform (e.g. piers) 7 <input type="checkbox"/> Underground structure (work areas) 8 <input type="checkbox"/> Connective structure (e.g. fences) 0 <input type="checkbox"/> Other type of structure	I2 Building Status ☆ 1 <input type="checkbox"/> Under construction 2 <input type="checkbox"/> Occupied & operating 3 <input type="checkbox"/> Idle, not routinely used 4 <input type="checkbox"/> Under major renovation 5 <input type="checkbox"/> Vacant and secured 6 <input type="checkbox"/> Vacant and unsecured 7 <input type="checkbox"/> Being demolished 0 <input type="checkbox"/> Other U <input type="checkbox"/> Undetermined	I3 Building Height ☆ <small>Count the ROOF as part of the highest story</small> _____ <small>Total number of stories at or above grade</small> _____ <small>Total number of stories below grade</small>	I4 Main Floor Size ☆ _____, _____, _____ <small>Total square feet</small> OR _____ BY _____ <small>Length in feet Width in feet</small>	NFIRS-3 Structure Fire
---	---	---	---	---------------------------------------

J1 Fire Origin ☆ _____ <small>Story of fire origin</small> <input type="checkbox"/> Below grade	J3 Number of Stories Damaged By Flame <small>Count the ROOF as part of the highest story</small> _____ Number of stories w/ minor damage (1 to 24% flame damage) _____ Number of stories w/ significant damage (25 to 49% flame damage) _____ Number of stories w/ heavy damage (50 to 74% flame damage) _____ Number of stories w/ extreme damage (75 to 100% flame damage)	K Material Contributing Most To Flame Spread <input type="checkbox"/> Check if no flame spread OR same as material first ignited OR unable to determine ➔ Skip to Section L K1 _____ <small>Item contributing most to flame spread</small> K2 _____ <small>Type of material contributing most to flame spread</small> <small>Required only if item contributing code is 00 or <70.</small>
--	--	---

L1 Presence of Detectors ☆ <small>(In area of the fire)</small> N <input type="checkbox"/> None Present ➔ Skip to section M 1 <input type="checkbox"/> Present U <input type="checkbox"/> Undetermined	L3 Detector Power Supply 1 <input type="checkbox"/> Battery only 2 <input type="checkbox"/> Hardwire only 3 <input type="checkbox"/> Plug in 4 <input type="checkbox"/> Hardwire with battery 5 <input type="checkbox"/> Plug in with battery 6 <input type="checkbox"/> Mechanical 7 <input type="checkbox"/> Multiple detectors & power supplies 0 <input type="checkbox"/> Other _____ U <input type="checkbox"/> Undetermined	L5 Detector Effectiveness <small>Required if detector operated.</small> 1 <input type="checkbox"/> Alerted occupants, occupants responded 2 <input type="checkbox"/> Occupants failed to respond 3 <input type="checkbox"/> There were no occupants 4 <input type="checkbox"/> Failed to alert occupants U <input type="checkbox"/> Undetermined
L2 Detector Type 1 <input type="checkbox"/> Smoke 2 <input type="checkbox"/> Heat 3 <input type="checkbox"/> Combination smoke - heat 4 <input type="checkbox"/> Sprinkler, water flow detection 5 <input type="checkbox"/> More than 1 type present 0 <input type="checkbox"/> Other _____ U <input type="checkbox"/> Undetermined	L4 Detector Operation 1 <input type="checkbox"/> Fire too small to activate 2 <input type="checkbox"/> Operated Complete Section L5 3 <input type="checkbox"/> Failed to operate Complete Section L6 U <input type="checkbox"/> Undetermined	L6 Detector Failure Reason <small>Required if detector failed to operate</small> 1 <input type="checkbox"/> Power failure, shutoff or disconnect 2 <input type="checkbox"/> Improper installation or placement 3 <input type="checkbox"/> Defective 4 <input type="checkbox"/> Lack of maintenance, includes cleaning 5 <input type="checkbox"/> Battery missing or disconnected 6 <input type="checkbox"/> Battery discharged or dead 0 <input type="checkbox"/> Other _____ U <input type="checkbox"/> Undetermined

M1 Presence of Automatic Extinguishment System ☆ N <input type="checkbox"/> None Present ➔ Complete rest of Section M 1 <input type="checkbox"/> Present	M3 Automatic Extinguishment System Operation <small>Required if fire was within designed range</small> 1 <input type="checkbox"/> Operated & effective (go to M4) 2 <input type="checkbox"/> Operated & not effective (M4) 3 <input type="checkbox"/> Fire too small to activate 4 <input type="checkbox"/> Failed to operate (go to M5) 0 <input type="checkbox"/> Other U <input type="checkbox"/> Undetermined
M2 Type of Automatic Extinguishment System <small>Required if fire was within designed range of AES</small> 1 <input type="checkbox"/> Wet pipe sprinkler 2 <input type="checkbox"/> Dry pipe sprinkler 3 <input type="checkbox"/> Other sprinkler system 4 <input type="checkbox"/> Dry chemical system 5 <input type="checkbox"/> Foam system 6 <input type="checkbox"/> Halogen type system 7 <input type="checkbox"/> Carbon dioxide (CO ₂) system 0 <input type="checkbox"/> Other special hazard system U <input type="checkbox"/> Undetermined	M4 Number of Sprinkler Heads Operating <small>Required if system operated</small> _____ <small>Number of sprinkler heads operating</small>

M5 Automatic Extinguishment System Failure Reason <small>Required if system failed</small> 1 <input type="checkbox"/> System shut off 2 <input type="checkbox"/> Not enough agent discharged 3 <input type="checkbox"/> Agent discharged but did not reach fire 4 <input type="checkbox"/> Wrong type of system 5 <input type="checkbox"/> Fire not in area protected 6 <input type="checkbox"/> System components damaged 7 <input type="checkbox"/> Lack of maintenance 8 <input type="checkbox"/> Manual intervention 0 <input type="checkbox"/> Other _____ U <input type="checkbox"/> Undetermined

NFIRS-3 Revision 01/19/99

Structure Module Test

1. The building height of a house with two stories, full attic (two rooms), and a full basement.
 - (a) Two stories
 - (b) Three stories
 - (c) Four stories
 - (d) Three stories above grade; one story below grade
2. The main floor size of the 40,000 total square feet house in Question #1.
 - (a) 40,000 square feet
 - (b) 20,000 square feet
 - (c) 10,000 square feet
 - (d) 50,000 square feet (adding the roof)
3. Battery and Hardwire are examples of this data element.
 - (a) Equipment Involved in Ignition
 - (b) Detector Operation
 - (c) Detector Power Supply
 - (d) Detector Type
4. Under construction and being demolished are examples of this data elements.
 - (a) Actions Taken
 - (b) Building Status
 - (c) Structure Type
 - (d) Cause of Ignition
5. A fire on a pier needs these modules.
 - (a) Basic and Fire
 - (b) Basic, Fire, and only Structure Type on the Structure Module
 - (c) Basic, Fire, and Structure
 - (d) Basic